

**ABSTRACT OF THE DISCLOSURE**

A telecommunications system and method is disclosed for adaptively configuring the cell structure of a cell having at least two carrier frequencies between an overlaid/underlaid (OL/UL) sub-cell structure and a normal cell structure based on the position of mobile stations within the cell. A Base Station Controller (BSC) for the cell determines the position of all of the mobile stations involved in a call connection within the cell relative to the cell site. If the number of mobile stations within a predefined distance from the cell site is greater than a channel threshold, the BSC adapts the cell configuration to the OL/UL sub-cell structure. The channel threshold is an operator-defined percentage of available channels (throughout the cell or within either the overlaid or underlaid cell). However, if the BSC determines that the percentage of mobile stations closer than the predefined distance is less than the channel threshold, the BSC maintains the normal cell structure.